



EV635996137US 01-05-06

JFW #

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/821,658
Filing Date	April 8, 2004
First Named Inventor	Eric Norman
Art Unit	3663
Examiner Name	Ricardo J. Palabrica
Attorney Docket Number	IB-1897

ENCLOSURES (Check all that apply)

- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> Fee Transmittal Form
<input type="checkbox"/> Fee Attached
<input type="checkbox"/> Amendment/Reply
<input type="checkbox"/> After Final
<input type="checkbox"/> Affidavits/declaration(s)
<input type="checkbox"/> Extension of Time Request
<input type="checkbox"/> Express Abandonment Request
<input checked="" type="checkbox"/> Information Disclosure Statement

<input type="checkbox"/> Certified Copy of Priority Document(s)
<input type="checkbox"/> Reply to Missing Parts/
Incomplete Application
<input type="checkbox"/> Reply to Missing Parts
under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)
<input type="checkbox"/> Licensing-related Papers

<input type="checkbox"/> Petition
<input type="checkbox"/> Petition to Convert to a
Provisional Application
<input type="checkbox"/> Power of Attorney, Revocation
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<input type="checkbox"/> Terminal Disclaimer

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<input type="checkbox"/> CD, Number of CD(s) _____
<input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC

<input type="checkbox"/> Appeal Communication to Board
of Appeals and Interferences

<input type="checkbox"/> Appeal Communication to TC
(Appeal Notice, Brief, Reply Brief)

<input type="checkbox"/> Proprietary Information

<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Other Enclosure(s) (please identify
below):
10 Publications; SB 08A and SB 08B;
Statement of IDS Under 37 C.F.R. §
1.8(a) and 1.10; and Return Postcard |
|--|--|---|

Remarks

Please charge any credit/deficiencies to LBNL Deposit Account #120690.

EV 635996137 US

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Lawrence Berkeley National Laboratory		
Signature	<i>R'Sue Caron</i>		
Printed name	R'Sue P. Caron		
Date	1/3/06	Reg. No.	52,699

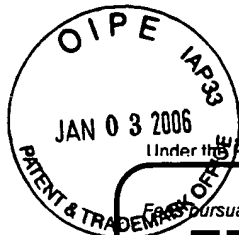
CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	<i>R'Sue Caron</i>		
Typed or printed name	R'Sue P. Caron	Date	01/03/2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Effective on 12/08/2004.

Pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180.00

Complete if Known

Application Number	10/821,658
Filing Date	April 8, 2004
First Named Inventor	Eric Norman
Examiner Name	Ricardo J. Palabrica
Art Unit	3663
Attorney Docket No.	1B-1897

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: 120690 Deposit Account Name: Lawrence Berkeley National Laboratory

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	0.00
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
Total Claims	Fee (\$)	Fee Paid (\$)
- 20 or HP = _____ x _____ = _____		
HP = highest number of total claims paid for, if greater than 20.		
Indep. Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP = _____ x _____ = _____		
HP = highest number of independent claims paid for, if greater than 3.		

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 = _____ / 50 = _____ (round up to a whole number) x 250.00 = 0.00				

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

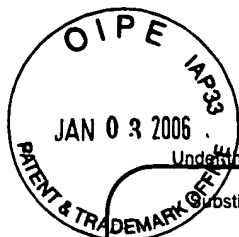
Other (e.g., late filing surcharge): Information Disclosure Statement under 37 C.F.R. 1.97(c) 180.00

SUBMITTED BY

Signature	R'Sue Caron	Registration No. (Attorney/Agent)	52,699	Telephone	510-486-6503
Name (Print/Type)	R'Sue P. Caron	Date	January 3, 2006		

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/08a (07-05)

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number	10/821,658
Filing Date	04/08/2004
First Named Inventor	Eric Norman
Art Unit	3663
Examiner Name	Ricardo J. Palabrica
Attorney Docket Number	IB-1897

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 3,636,353	01/18/1972	Untermeyer	
		US- 4,902,467	02/20/1990	Schoenig et al.	
		US- 4,897,550	01/30/1990	Bernard et al.	
		US- 5,378,895	01/03/1995	Cole et al.	
		US- 3,767,919	10/23/1973	Michaelis	
		US- 3,796,875	03/12/1974	Michaelis	
		US- 5,784,424	07/21/1998	Fries et al.	
		US- 3,786,256	01/15/1974	Untermeyer	
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FOREIGN PATENT DOCUMENTS

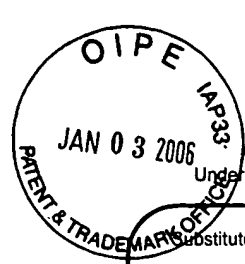
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

1

Complete if Known

Application Number

10/821,658

Filing Date

04/08/2004

First Named Inventor

Eric Norman

Art Unit

3663

Examiner Name

Ricardo J. Palabrica

Attorney Docket Number

IB-1897

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		SLAUGHTER ET AL., "Detection of Special Nuclear Material in Cargo Containers Using Neutron Interrogation," Lawrence Livermore National Laboratory, UCRL-ID-155315, (No. IL 11319), p. 1-63, (August 2003).	
		SLAUGHTER ET AL., "The "Nuclear Car Wash": A Scanner to Detect Illicit Special Nuclear Material in Cargo Containers," IEEE Sensors Journal, Special Issue on Sensors for the Prevention of Terrorists Acts, UCRL-JRNL-202106, p. 1-8, (January 30, 2004).	
		NORMAN ET AL., "Signatures of Fissile Materials: High-energy γ Rays Following Fission," Nuclear Instruments and Methods in Physics Research A, Vol. 521, p. 608-610, (2004).	
		ALFASSI, "Response to A Comment on "Signatures of Fissile Materials: High-energy γ Rays Following Fission"," Nuclear Instruments and Methods in Physics Research A, Vol. 534, p.577, (2004).	
		PRUET ET AL., "Monte Carlo Models for the Production of B-delayed Gamma-rays Following Fission of Special Nuclear Materials," Nuclear Instruments and Methods in Physics Research B, Vol. 222, p. 403-410, (2004).	
		NORMAN, "An Eclectic Journey Through Experimental Physics, or How I Learned to Stop Worrying and Love Nuclear Data," Lawrence Livermore National Laboratory, UCRL-PROC-208598 p. 14-18, (December 14, 2004).	
		SLAUGHTER ET AL., "Early Results Utilizing High-Energy Fission Product γ Rays to Detect Fissionable Material in Cargo," Lawrence Livermore National Laboratory, Vol. UCRL-JRNL-207073, p.1-6, (October 10, 2004).	
		BIEVER, "Improved X-ray Vision to Stop Nuke Smugglers," New Scientist.com News Service, (October 20, 2005).	
		STROM ET AL., "Ionizing Radiation Imaging Technologies for Homeland Security," Health Physics Society, Proceedings of the 36th Midyear Topical Meeting, p. 79-87, (January 26, 2003).	
		GOZANI, "A Review of Neutron Based Non-Intrusive Inspection Techniques," Conference on Technology for Preventing Terrorism, Hoover Institution, Stanford University, p. 1-12, (March 12, 2002).	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Practitioner's Docket No. IB-1897

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Norman, Eric

Application No.: 10/821,658

Group No.: 3663

Filed: April 8, 2004

Examiner: Ricardo J. Palabrica

For: Detecting Special Nuclear Materials in Containers Using High-Energy Rays Emitted by Fission Products

01/06/2006 HDEHES1 00000020 120690 10821658

01 FC:1806 180.00 DA

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

I. This information disclosure statement is filed pursuant to (CHECK ONE BOX):



37 CFR 1.97(b)

This information disclosure statement is filed either:

(1) within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d);

(2) within three months of the date of entry of the national stage as set forth in § 1.491 in an international application;

(3) before the mailing of a first Office action on the merits; or

(4) before the mailing of a first Office action after the filing of a request for continued examination under § 1.114.

Accordingly, this information disclosure statement requires no fee and no statement.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

(When using Express Mail, the Express Mail label number is mandatory;
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

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37 C.F.R. § 1.8(a)

☐ with sufficient postage as first class mail.

37 C.F.R. § 1.10*

☒ as "Express Mail Post Office to Addressee"

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TRANSMISSION

☐ facsimile transmitted to the Patent and Trademark Office, (703) _____

Date: 1/3/2006

Signature

Mark Menge

(type or print name of person certifying)

* Only the date of filing (' 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under ' 1.8 continues to be taken into account in determining timeliness. See ' 1.703(f). Consider "Express Mail Post Office to Addressee" (' 1.10) or facsimile transmission (' 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

**37 CFR 1.97(c)**

This information disclosure statement is filed **after** the period specified in paragraph 37 CFR 1.97(b), but **before** the mailing date of any of the following:

- (1) a final action under § 1.113;
- (2) a notice of allowance under § 1.311; or
- (3) an action that otherwise closes prosecution in the application.

Accordingly, this information disclosure statement requires either:

- (1) the statement specified in paragraph 37 CFR 1.97(e)(1) or (2); or
- (2) the fee set forth in § 1.17(p) for submission of an information disclosure statement under 37 CFR 1.97(c).

**37 CFR 1.97(d)**

This information disclosure statement is filed **after** the period specified in paragraph 37 CFR 1.97(c), provided that the information disclosure statement is filed on or before payment of the issue fee and is accompanied by:

Accordingly, this information disclosure statement requires:

- (1) the statement specified in paragraph 37 CFR 1.97(e)(1) or (2); and
- (2) the fee set forth in § 1.17(p) for submission of an information disclosure statement under 37 CFR 1.97(d).

If this information disclosure statement crosses in the mail with an office action, or is otherwise not in the indicated category of 37 CFR 1.97, it is respectfully requested that this statement be treated in the next appropriate category and made of record. To the extent required, please treat this paper as a conditional petition for acceptance of the information disclosure statement.

II Fees Due (CHECK ONE BOX):

No fee is due.



The fee as set forth in § 1.17(p) for submission of an information disclosure statement under 37 CFR 1.97(c) or (d) is enclosed (\$180).

III Statement (CHECK ONE BOX):

No statement is necessary.



Pursuant to 37 CFR 1.97(e)(1), the undersigned hereby certifies:

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement; or



Pursuant to 37 CFR 1.97(e)(2), the undersigned hereby certifies:

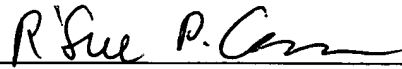
That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this information disclosure statement.

IV Method of Payment of Fee:

Authorization is hereby made to charge the amount of \$180.00 to Deposit Account No. 120690.

A duplicate of this paper is attached.

Date: January 3, 2006



R'Sue P. Caron
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